

REMARKS

Claims 1-23 are pending in the present application. In the Office Action, the Examiner rejected the Claims as follows. Claims 1, 5, and 7-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,477,670 (Ahmadvand) in view of U.S. Patent No. 6,788,657 B1 (Freiberg) and U.S. Patent No. 5,425,029 (Hluchyj). Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg and Hluchyj and further in view of U.S. Patent No. 6,351,460 B1 (Tiedmann) and U.S. Patent No. 5,966,377 (Murai). Claims 3 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg, Hluchyj, Tiedmann, and Murai and further in view of U.S. Patent No. 5,657,325 (Lou). Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg and Hluchyj and further in view of U.S. Patent No. 6,711,182 B1 (Gibbs). Claims 16 and 19-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg and Hluchyj and further in view of Murai. Claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg, Hluchyj, and Murai and further in view of Lou. Claim 18 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg, Hluchyj, Lou, and Murai and further in view of Tiedmann. Claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ahmadvand in view of Freiberg, Hluchyj, and Murai and further in view of Lou. Claim 23 was rejected under 35 U.S.C. §103(a) as being

unpatentable over Ahmadvand in view of Freiberg, Hluchyj, and Murai and further in view of Tiedmann.

The present application, as recited in Claims 1 and 15, is directed to a device and method for transmitting multimedia data for a variety of services which can be offered to a user of a corresponding communication system. The device and method enable the concurrent transmission of multiple data for a variety of multimedia services to a single user (or a plurality of single users) according to a 1x EVDV protocol. In contrast, while existing CDMA 2000 1x systems and CDMA 1x EVDO systems typically support the transmission of a single type of multimedia data at a given time to any single user, these systems are generally unsuitable for the concurrent transmission of a plurality of types of multimedia data for a plurality of services to any single user. Moreover, a further advantage of the device and method of the present application is that a plurality of data for a plurality of services can be transmitted to any single user through the same physical channel according to a requested QoS.

Ahmadvand discloses a Data Link Layer (DLL) protocol for direct support of Internet Protocol (IP) networking in the Universal Mobile Telecommunications System (UMTS). In other words, Ahmadvand teaches segmenting data for transmitting data with different Quality of Service (QoS) in an RLP (Radio Link Protocol) layer. Furthermore, Ahmadvand teaches the Segmentation, Concatenation and Reassembly (SCR) module

(which is part of the radio link control (RLC)) chops the augmented IP packets 46 into smaller size packets, or “sequence frames” 74 and that an important feature of the SCR module is the “concatenation” of short data messages. Ahmadvand discloses in the case where the amount of data in each IP packet 45 is very small with respect to the size of the RLC frame 77, the SCR module concatenates a number of short messages into one RLC frame 77, and that the RLC frames 77 are delivered to the MAC sublayer 80 to be multiplexed into different transport channels 25 (Column 6, Lines 50-56; Column 7 Lines 4-20; and FIGs. 2, 3 and 4). In other words, Ahmadvand teaches concatenating a number of short messages in the RLC layer (which is not in the MAC layer) and creating RLC frames. Furthermore, Ahmadvand does not teach a comparison step in a MUX layer. Ahmadvand discloses that only RLC (radio link control) frames are multiplexed.

Freiberg discloses a UMTS network in which a single user can transmit or receive a number of services having different transmission power requirements over a single channel and the technique of rate matching is applied, and further discloses a method of determining for each service the number of bits to be punctured or repeated and comprises deriving for each service the Energy per Bit per Noise density (E_B/N_o).

Regarding the Examiner’s rejection of independent Claims 1 and 15, the Examiner states that the combination of Ahmadvand and Freiberg discloses all the recitations of Claims 1 and 15 except for the recitation of comparing the length of the

datagrams with the length of a transport unit and multiplexing the datagrams into transport units based on the determination, which the Examiner states is taught by Hluchyj. After reviewing the cited references, it is respectfully submitted that the Examiner is incorrect.

Ahmadvand and Freiberg are discussed above.

Hluchyj teaches an early to mid-1990's era fast packet (FP) relay system in a connection-oriented packet communication system having inter-networking switching nodes, which allows packet information transfer from a first type packet switching system to a different second type packet switching system. In other words, Hluchyj teaches adapting the format of each packet from the first type packet switching network to a format that is portable across the second type packet switching network (e.g., see FIG. 1, step 100; and FIG. 2). Although Hluchyj teaches determining a maximum allowable FP payload length, Hluchyj also teaches that this insures that fast packet to cell mapping is one-to-one [basis] and that no segmentation or reassembly is required, which teaches away from the present application as recited in the Claims 1 and 15. Moreover, Hluchyj teaches control information may be mapped from the header of the fast packet into the payload of the cell relay packet which further teaches away from the present application.

In contrast, Claim 1 includes the recitation of a MUX (Multiplexing) layer for

comparing the length of the datagrams with the length of a transport unit (TU), multiplexing the datagrams received from the RLP layer based on the determination, and outputting the multiplexed data in a TU, and Claim 15 includes the recitation of comparing in a multiplexing (MUX) layer the length of a datagram with the length of a transport unit (TU), and multiplexing the datagrams received from the RLP layer based on the comparison and outputting the multiplexed data in a TU in the MUX Multiplexing layer, which are neither taught nor suggested by Ahamadvand, Freiberg, or Hluchyj, or the combination thereof.

Accordingly, as neither Ahamadvand, Freiberg, or Hluchyj, or the combination thereof, teach or suggest each and every limitation of Claims 1 and 15, it is respectfully requested that the rejections under 35 U.S.C. §103(a) of Claims 1 and 15 be withdrawn.

Independent Claims 1 and 15 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2-14, and 16-23, these are likewise believed to be allowable by virtue of their dependence on their respective amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2-14, and 16-23 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-23, are believed to be in condition for allowance. Should the Examiner believe that a

telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul J. Farrell". The signature is fluid and cursive, with the first name "Paul" and last name "Farrell" clearly distinguishable.

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